



Broadband Mapping Overview

December 2010

Alabama is engaged in a project to map the availability of broadband connections throughout the state and to make plans for enhanced broadband deployment and usage. An interactive mapping tool has been developed and placed online as part of this effort.

In November 2009, the Alabama Broadband Initiative (ALBI) received approximately \$1.8 million in grant funding from the National Telecommunications and Information Administration (NTIA) through the “State Broadband Data and Development Grant Program (SBDD)”. ALBI selected the LinkAMERICA Alliance as the primary contractor to oversee and implement many of the program’s activities in the first two years. In September 2010 ALBI received an additional \$2.97 million in grant funding to complete years 3-5 of the program.

Mapping is an important first step in a state’s broadband planning efforts. First and foremost, developing detailed service maps is a great way to organize and conduct a comprehensive inventory of service across the entire State with a spotlight on where there are unserved or underserved areas. This core information helps focus policymakers, community leaders, service providers and others on the central issue at hand: where is the existing digital divide and how can we best close it?

In compliance with requirements of the SBDD—and to ensure a realistic, informative view of Alabama’s broadband inventory and service areas—the LinkAMERICA Alliance began identifying the State’s providers of broadband service in 2008. Providers were identified through multiple sources, including:

- 1) State agencies
- 2) State association membership lists
- 3) National association lists
- 4) Third-party data sources
- 5) Web searches

Given the dynamic nature of competition in the telecommunications industry (including mergers, acquisitions, and the constant emergence of new providers), maintaining a current list of broadband providers is one of the most important and challenging aspects of the program. To date, approximately 75 broadband access providers have been contacted, and most are providing internet access at the minimum speeds required for SBDD participation (768 kilobits per second [kbps] download and 200 kbps upload speed). An initial Provider Workshop was held for all broadband providers identified through this process and the team has continued to help new providers join the program.

Consistent with NTIA’s rules to ensure providers’ proprietary business data is not compromised, non-disclosure agreements (NDAs) have been executed between the LinkAMERICA Alliance and the majority of known broadband providers. NDAs are not mandatory for data submission, and all data is protected regardless of the existence of an executed Agreement.

A secure, online data upload tool was developed for providers. Providers of broadband service unable to submit data in the web-based format were provided with an alternate submission path. Alternate data submitted ranged from scanned paper maps to engineering system drawings or customer address lists. All data received is maintained in a secure server.

Of the known providers, over 80% have submitted at least partial data in the first two rounds of the survey process.¹ As required by the NTIA, the first map (posted in early 2010) reflected broadband coverage as of June 30, 2009. Maps updated and released in Dec. 2010 reflect the availability of broadband access as of June 30, 2010.

Following NTIA guidelines, data collected includes:

- 1) Maximum advertised upstream and downstream speeds.
- 2) Typical upstream and downstream speeds.
- 3) Technology of transmission.
- 4) Street segment data for census blocks larger than two square miles.
- 5) Location and capacity of middle mile infrastructure points.
- 6) End-user wireless broadband service.²

Missing or inaccurate data submissions may lead to an incomplete or inaccurate depiction of broadband service coverage. As maps may be used to identify underserved and unserved areas for future grant funding, scarce resources may be misdirected to areas where broadband already exists and not to areas where the need is the greatest. Therefore, data from commercial sources, such as ExchangeInfo, MediaPrints and AmericanRoamer, is used to fill in gaps in provider submissions or in locations where providers declined to participate. Similar data will also be used to cross check provider-reported coverage and speed information.

Initial data has been aggregated into Geographic Information System (GIS) layered maps according to NTIA requirements, and participating broadband service providers have been asked to verify that their service footprint is accurately depicted. Given the changing nature of the data as provider networks grow, the verification process will be ongoing and is critical to confirming the accuracy of the maps.

The online maps are important:

- To consumers as they seek to understand if broadband is available in their area, what type technologies are utilized, which ISPs offer coverage and how they can be contacted for further information.
- To the regional planning teams as they work to understand the reality of the broadband footprint and adoption rates in their specific regions and develop broadband investment plans.³
- To policymakers at the local, state and national levels as they seek to better understand broadband conditions and establish appropriate policies.

¹ It should be noted that some parent companies submit data for multiple subsidiaries; and, for the purposes of this data survey, parent companies (rather than individual subsidiaries) are counted.

² For the purposes of this response, 'end-user' is a residential or business party, institution, or state or local government entity that may use broadband for its own purposes and does not resell such service.

³ Regional planning teams are now being formed as part of the ConnectingALABAMA project.

Per requirements of the SBDD, the data collected for Alabama maps is also provided to NTIA for inclusion in a national broadband map. In compliance with Congressional requirements, the first full version of the national map is scheduled for public release in early 2011. Alabama's initial data submission, reflecting data current as of June 30, 2009, was submitted to NTIA on March 31, 2010. Updated data, reflecting broadband availability as of June 30, 2010, was submitted to NTIA on Oct. 8, 2010.

With each consecutive round, providers will be asked to update their coverage and speed information and will be given the opportunity to identify and correct errors—allowing the maps to become increasingly accurate over time. The next updates of Alabama's interactive maps will take place in Q2 2011 and Q4 2011.

More information about ConnectingALABAMA and the State's broadband maps can be found at www.ConnectingALABAMA.gov.